This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

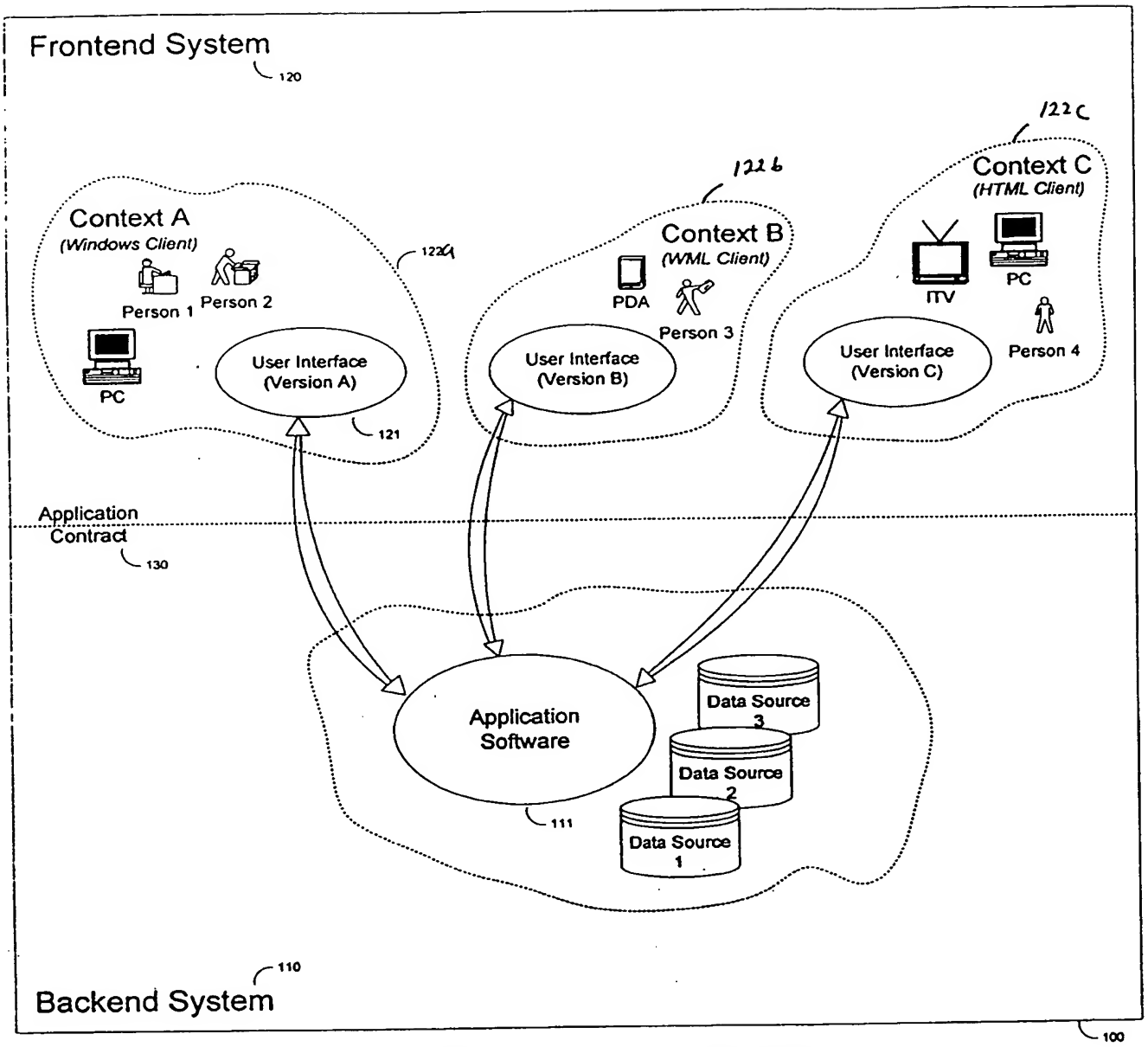
Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images, please do not report the images to the Image Problem Mailbox.



Interactive Computer System

FIG. 1

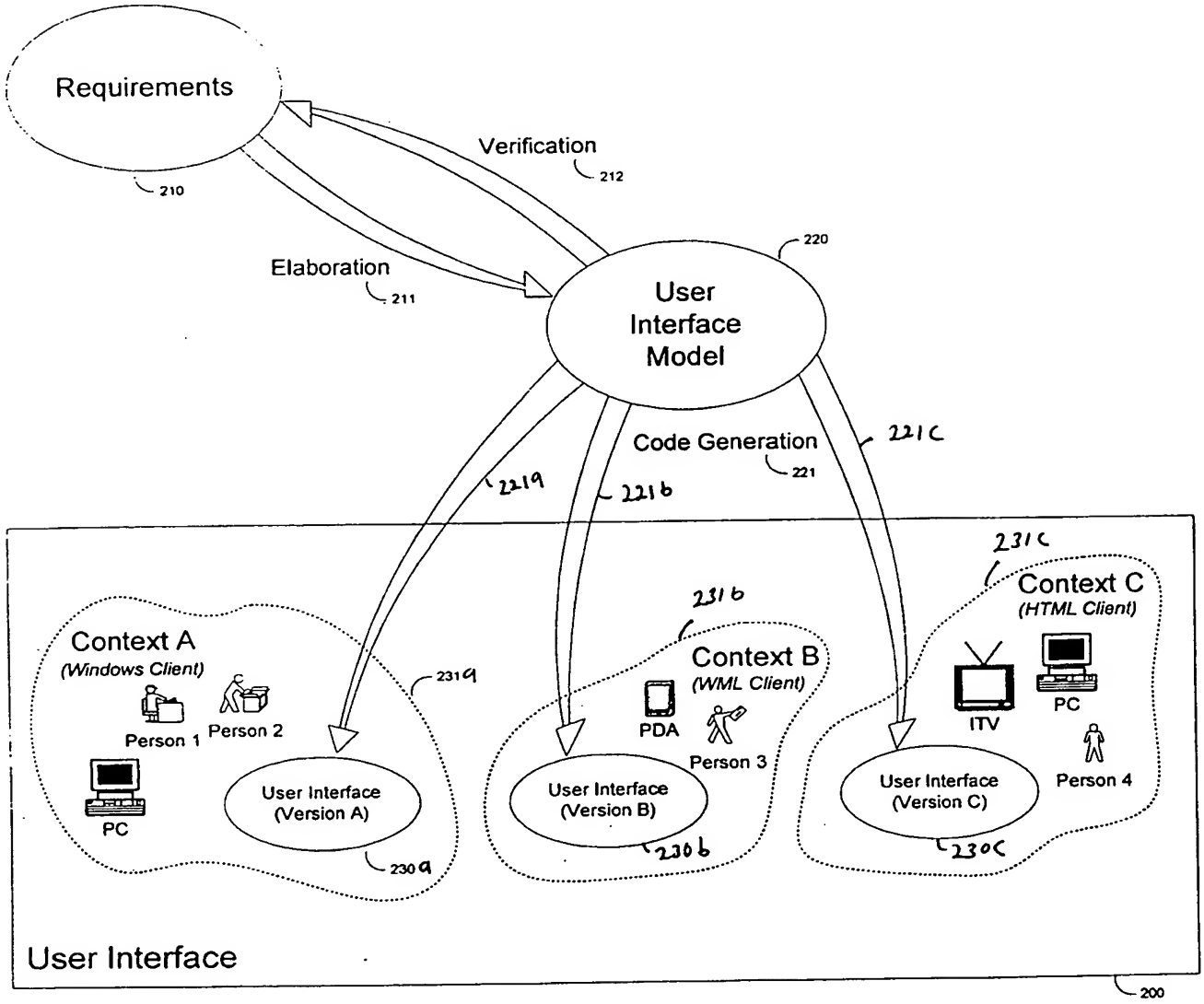
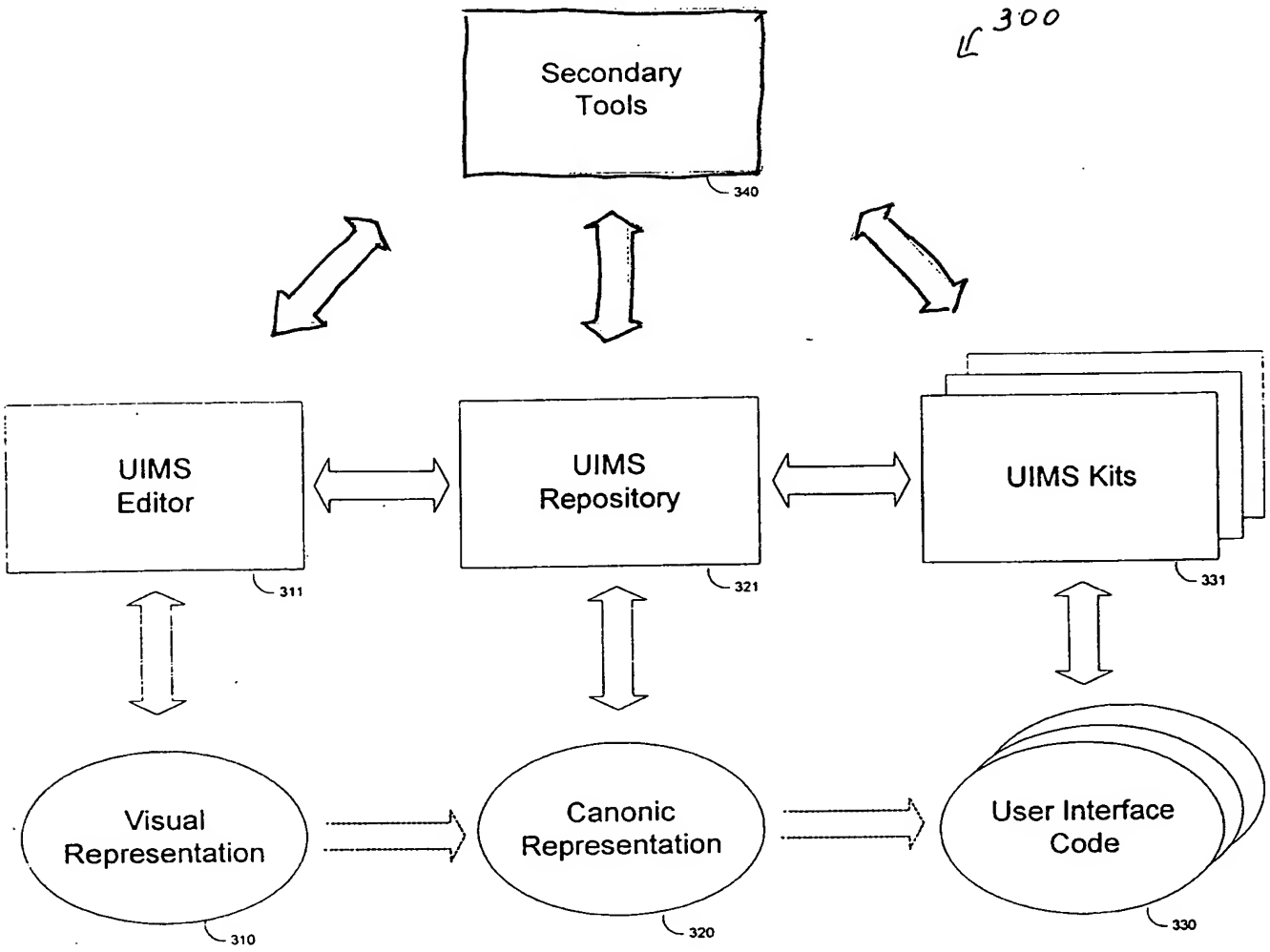

Requirements
210
Verification
212
Elaboration
211
220
User Interface Model
Code Generation
221
221a
221b
221c
231a
Context A
(Windows Client)
Person 1
Person 2
PC
User Interface (Version A)
230a
231b
Context B
(WML Client)
PDA
Person 3
User Interface (Version B)
230b
231c
Context C
(HTML Client)
ITV
PC
Person 4
User Interface (Version C)
230c
User Interface
200

FIG. 2



User Interface Modeling System (UIMS)

FIG. 3A

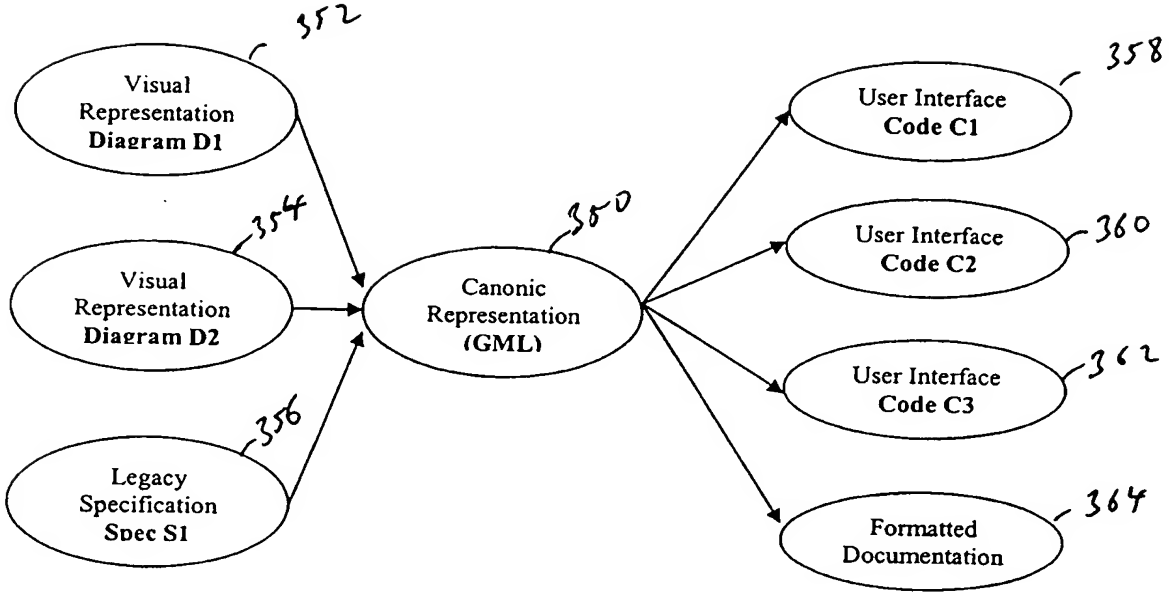

352
Visual Representation Diagram D1
354
Visual Representation Diagram D2
356
Legacy Specification Spec S1
350
Canonic Representation (GML)
358
User Interface Code C1
360
User Interface Code C2
362
User Interface Code C3
364
Formatted Documentation

FIG. 3B

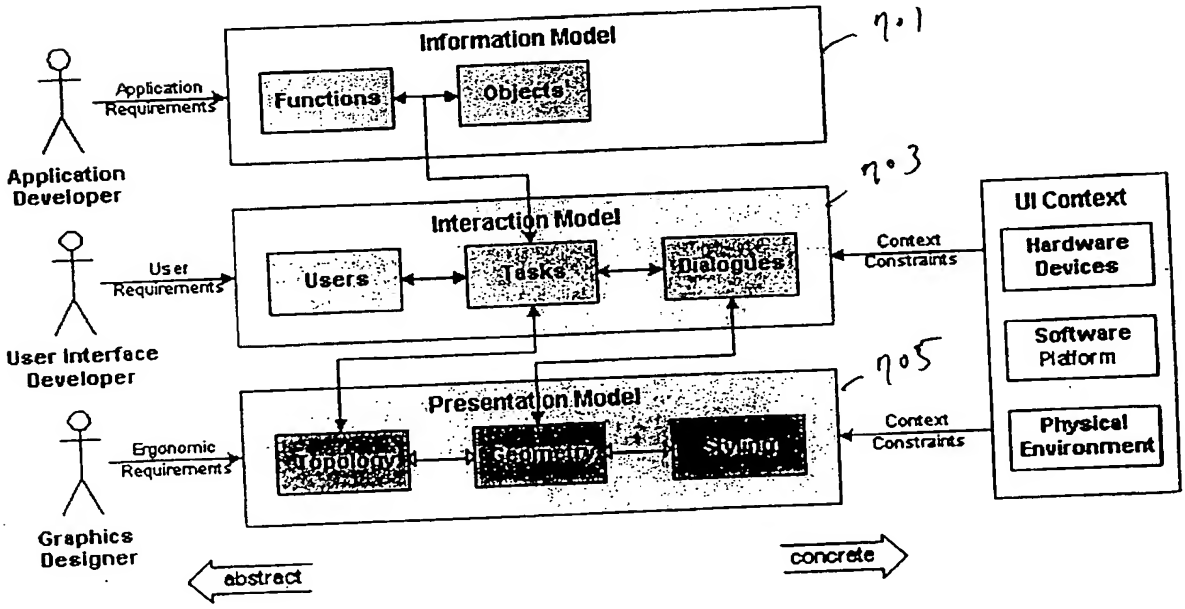

701
Information Model
Functions
Objects
Application Requirements
Application Developer
703
Interaction Model
Users
Tasks
Dialogues
User Requirements
User Interface Developer
UI Context
Hardware Devices
Software Platform
Physical Environment
Context Constraints
Context Constraints
705
Presentation Model
Topology
Geometry
Styling
Ergonomic Requirements
Graphics Designer
abstract
concrete

FIG. 7A

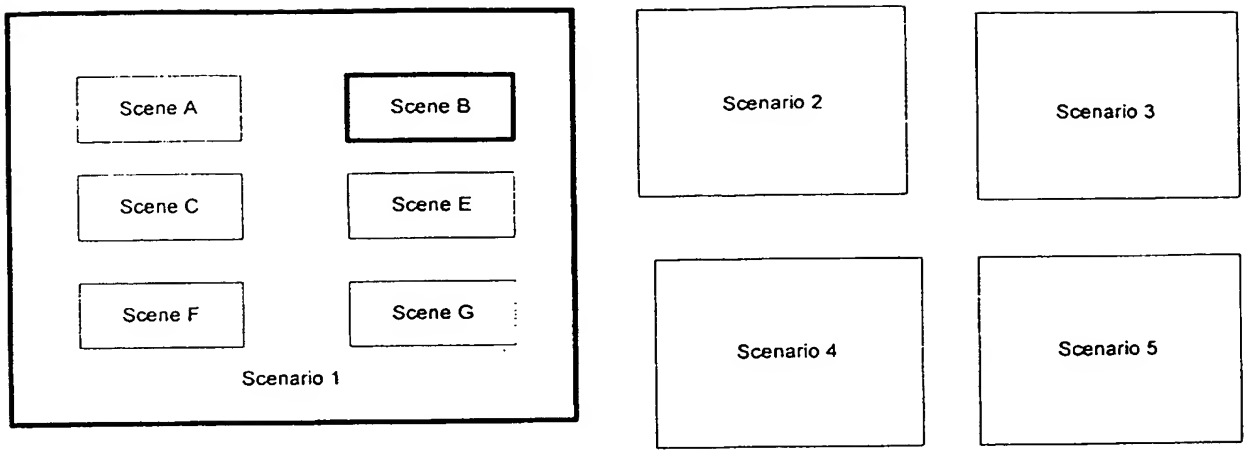

Scene A
Scene B
Scene C
Scene E
Scene F
Scene G
Scenario 1
Scenario 2
Scenario 3
Scenario 4
Scenario 5

FIG. 3C

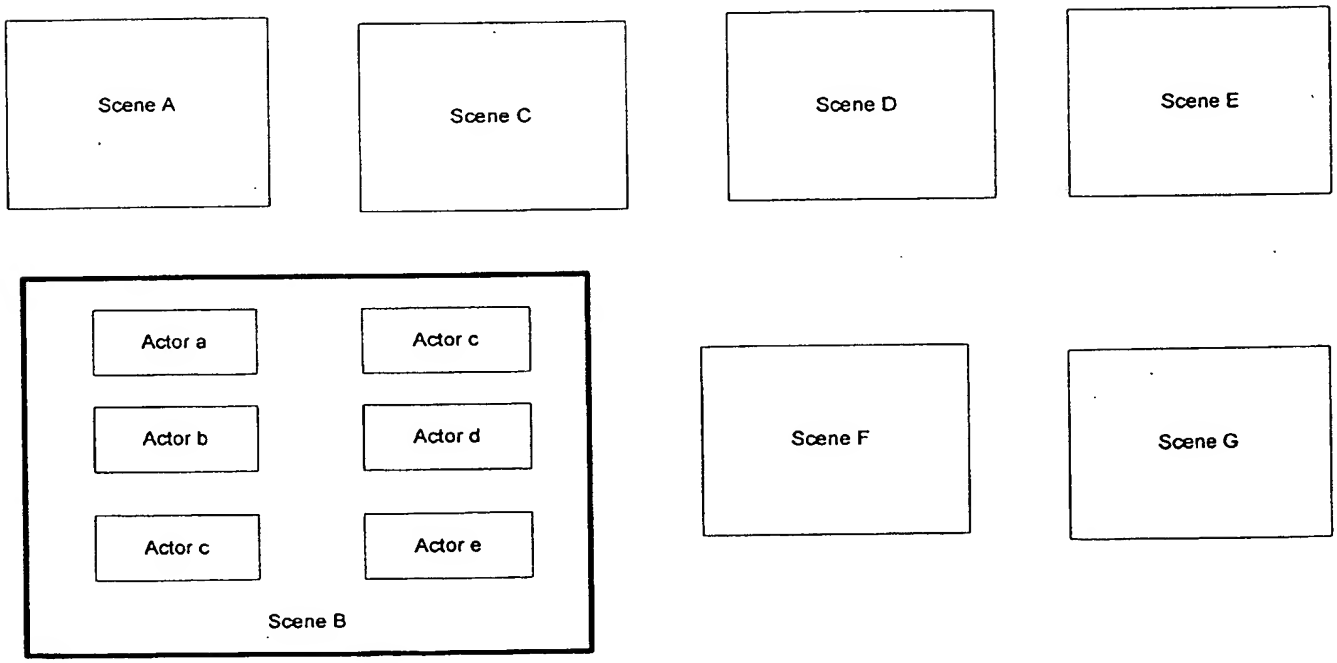

Scene A
Scene C
Scene D
Scene E
Actor a
Actor c
Actor b
Actor d
Actor c
Actor e
Scene B
Scene F
Scene G

FIG. 3D

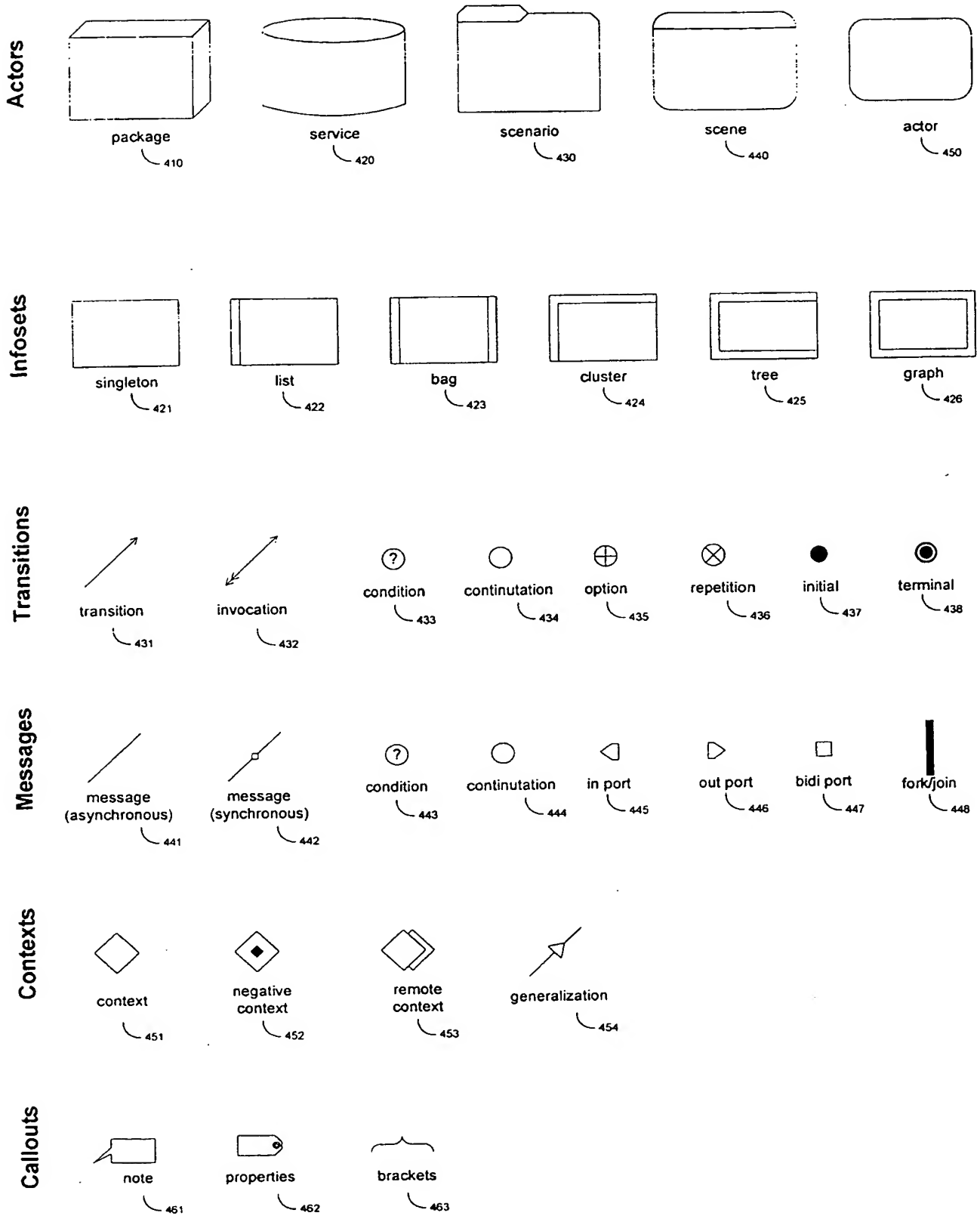

Actors
package
410
service
420
scenario
430
scene
440
actor
450
Infosets
singleton
421
list
422
bag
423
cluster
424
tree
425
graph
426
Transitions
transition
431
invocation
432
condition
433
continutation
434
option
435
repetition
436
initial
437
terminal
438
Messages
message (asynchronous)
441
message (synchronous)
442
condition
443
continutation
444
in port
445
out port
446
bidi port
447
fork/join
448
Contexts
context
451
negative context
452
remote context
453
generalization
454
Callouts
note
461
properties
462
brackets
463

FIG. 4

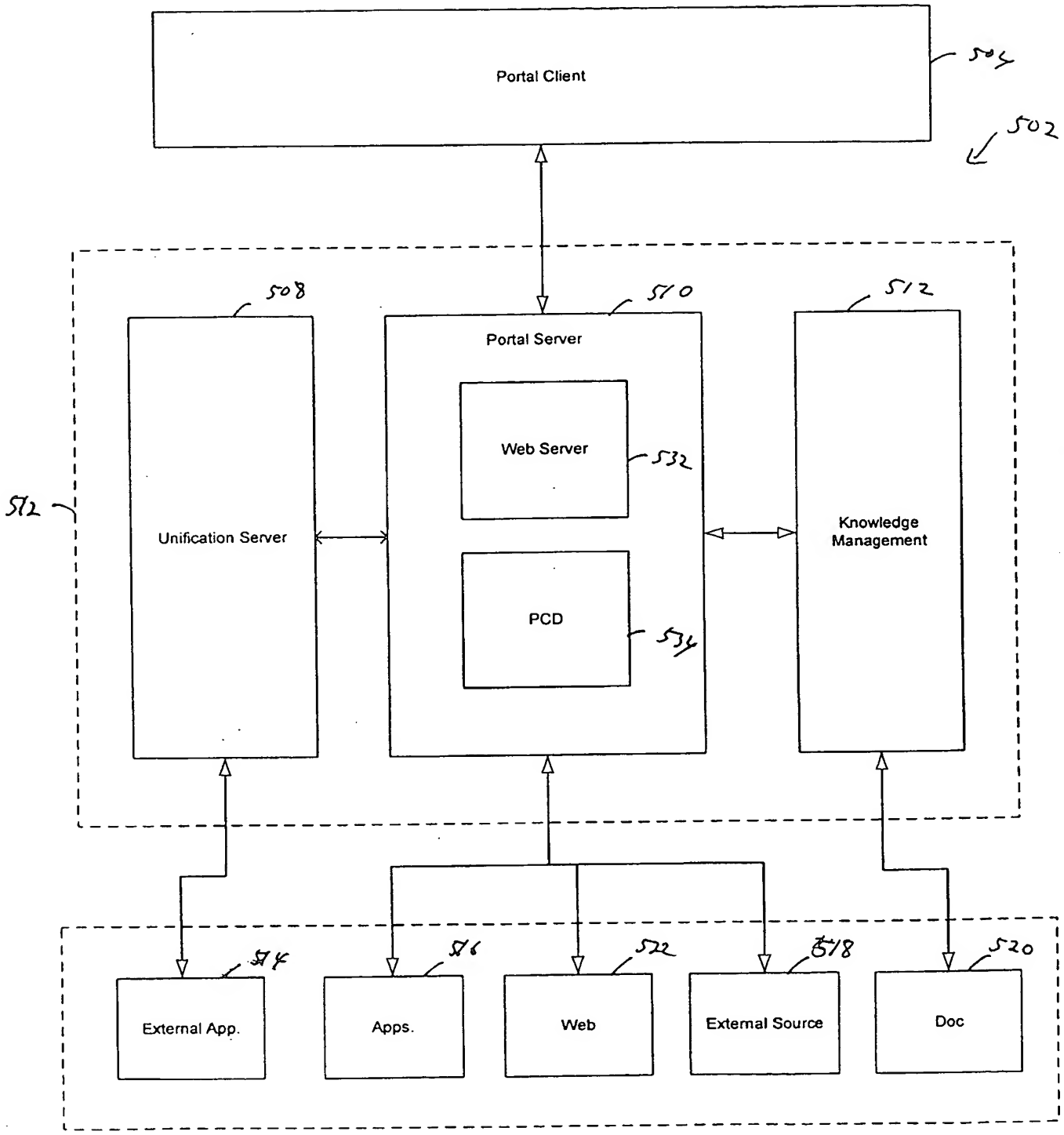

Portal Client
504
502
508
510
512
Portal Server
Web Server
532
Unification Server
Knowledge Management
PCD
534
512
External App.
Apps.
Web
External Source
Doc
514
516
522
518
520

FIG. 5

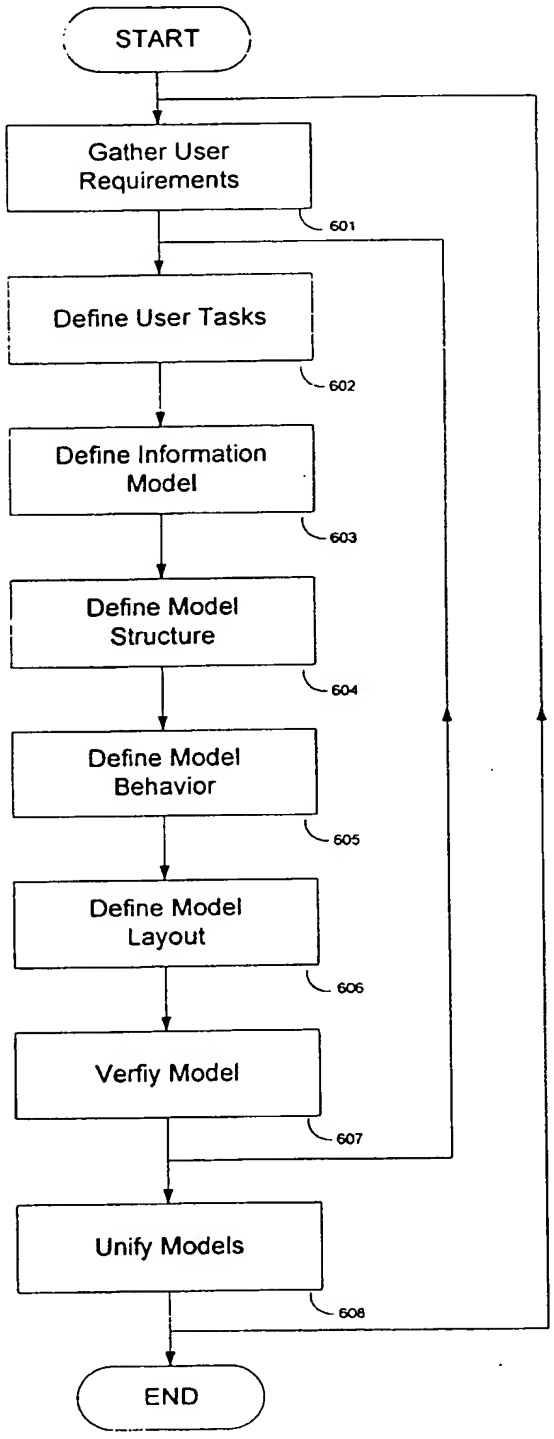

START
Gather User Requirements
601
Define User Tasks
602
Define Information Model
603
Define Model Structure
604
Define Model Behavior
605
Define Model Layout
606
Verfiy Model
607
Unify Models
608
END

FIG. 6

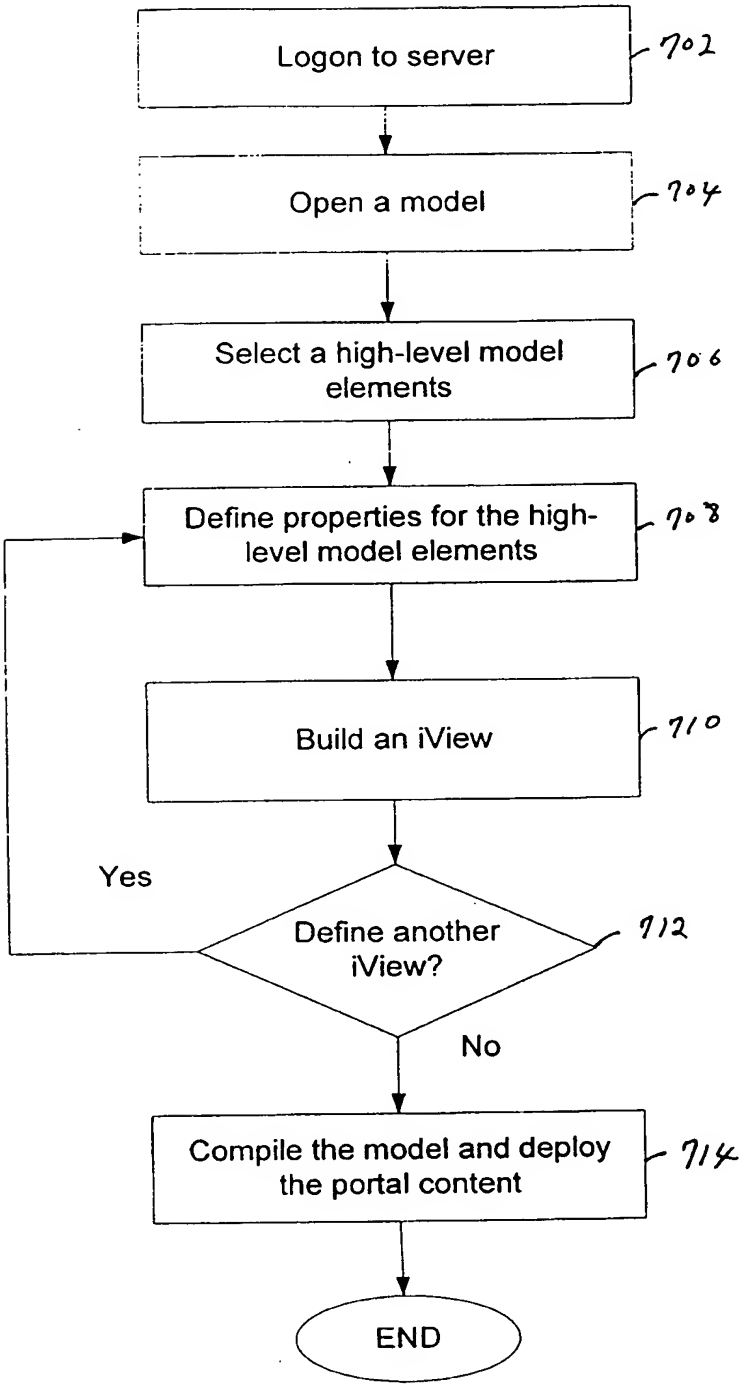

Logon to server
702
Open a model
704
Select a high-level model elements
706
Define properties for the high-level model elements
708
Build an iView
710
Yes
Define another iView?
712
No
Compile the model and deploy the portal content
714
END

FIG. 7B

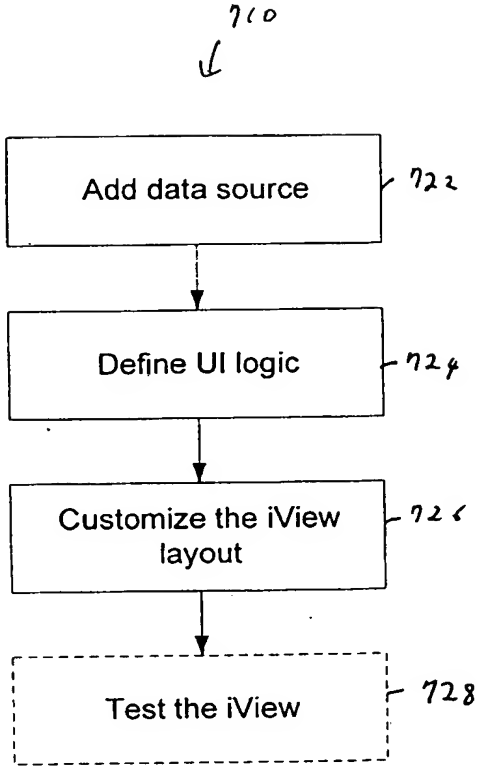

710
Add data source
722
Define UI logic
724
Customize the iView layout
726
Test the iView
728

FIG. 7C

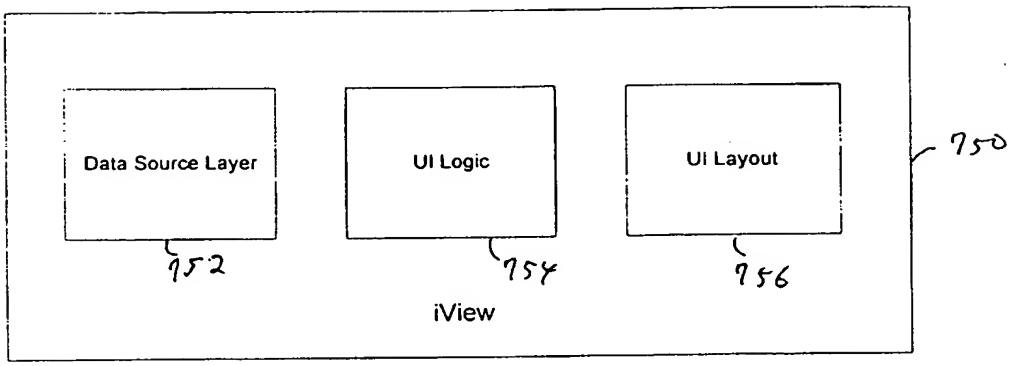

Data Source Layer
UI Logic
UI Layout
752
754
756
iView
750

FIG. 7D

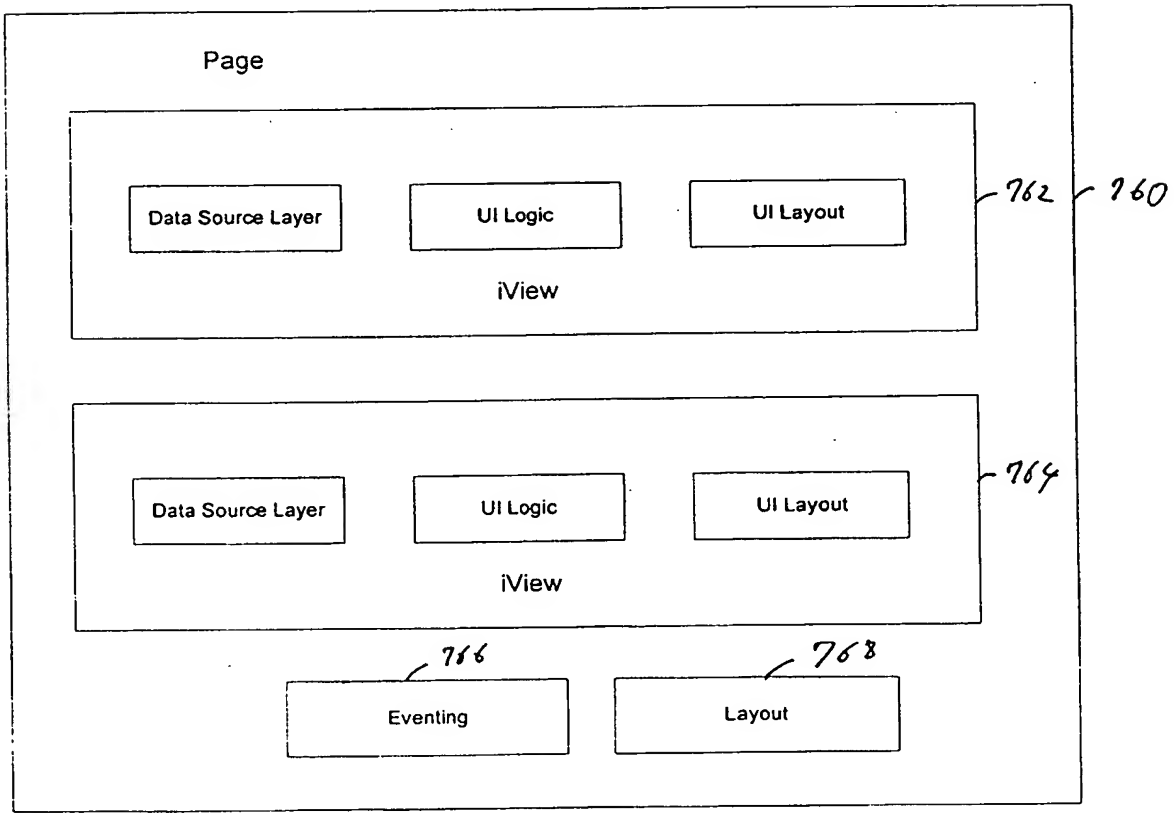

Page
Data Source Layer
UI Logic
UI Layout
762
760
iView
Data Source Layer
UI Logic
UI Layout
764
iView
766
768
Eventing
Layout

FIG. 7E

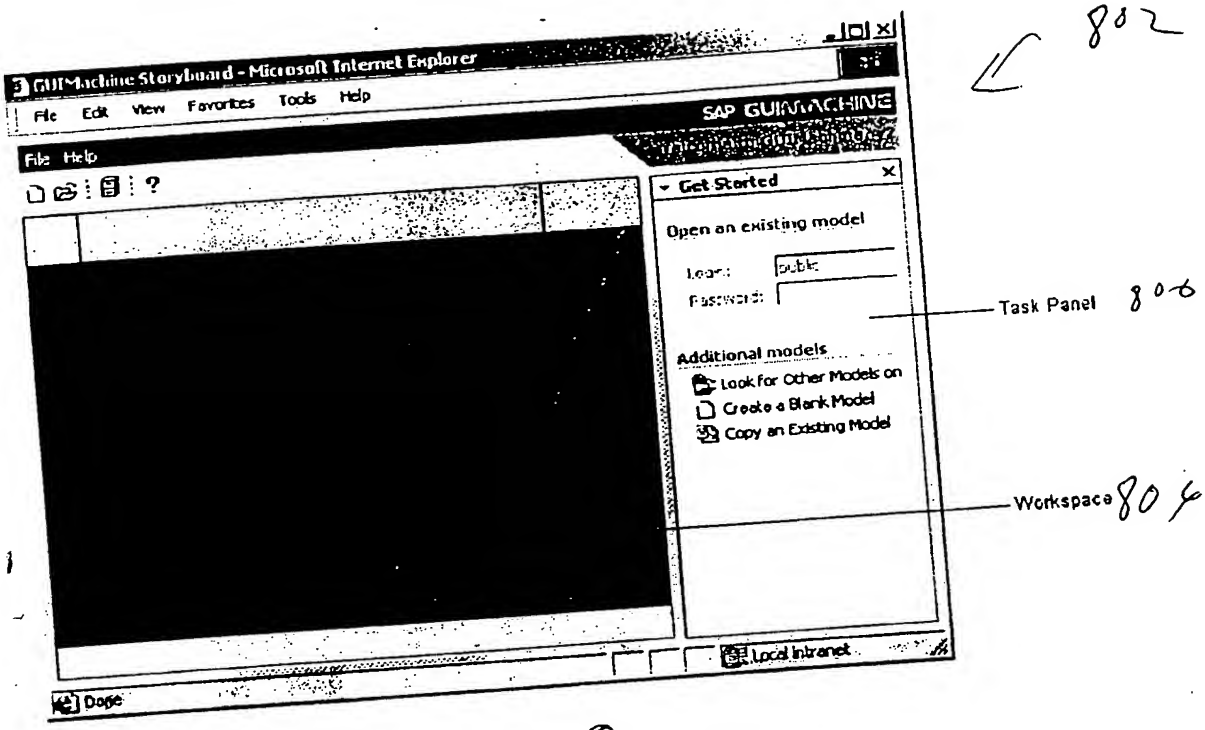

802
GUIMachine Storyboard - Microsoft Internet Explorer
File Edit View Favorites Tools Help
SAP GUIMACHINE
File Help
Get Started
Open an existing model
Additional models...
Look for Other Models on
Create a Blank Model
Copy an Existing Model
Task Panel 806
Workspace 804
Local Intranet
Done

FIG. 8

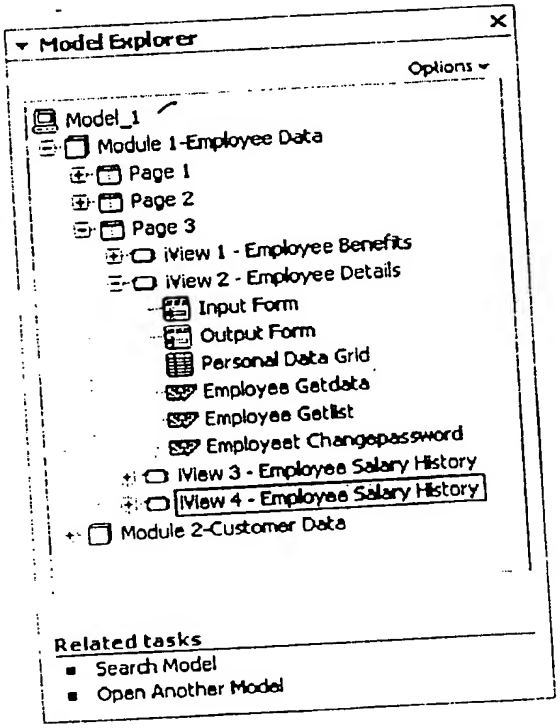

Model Explorer
Options
Model_1
Module 1-Employee Data
Page 1
Page 2
Page 3
iView 1 - Employee Benefits
iView 2 - Employee Details
Input Form
Output Form
Personal Data Grid
Employee Getdata
Employee Getlist
Employeet Changepassword
iView 3 - Employee Salary History
iView 4 - Employee Salary History
Module 2-Customer Data
Related tasks
Search Model
Open Another Model

FIG. 17

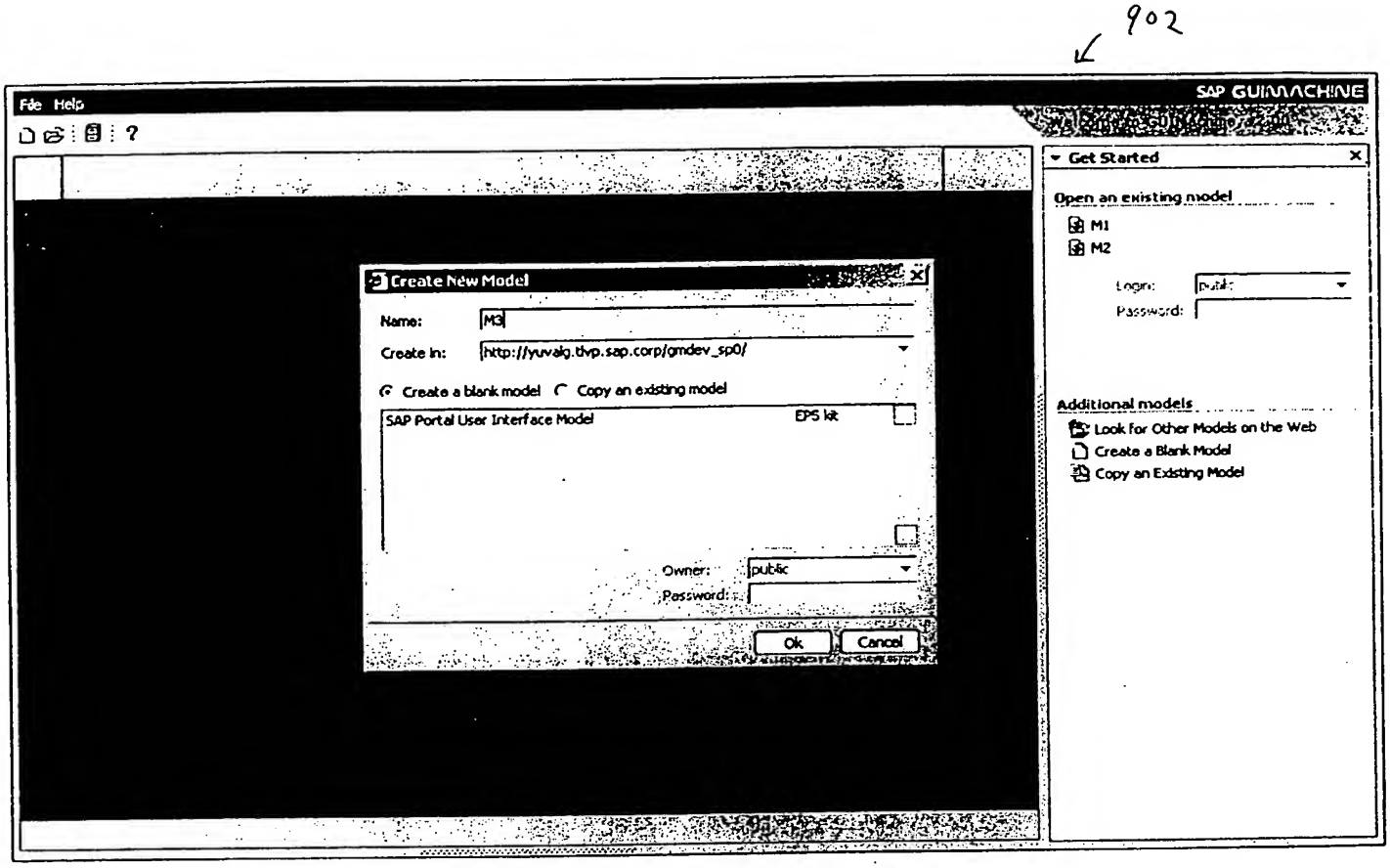

902
File Help
SAP GUIMACHINE
Get Started
Open an existing model
M1
M2
Login:
Password:
Additional models
Look for Other Models on the Web
Create a Blank Model
Copy an Existing Model
Create New Model
Name:
M3
Create in:
http://yuvalg.tvp.sap.corp/gmdev_sp0/
Create a blank model
Copy an existing model
SAP Portal User Interface Model
EPS kit
Owner:
public
Password:
Ok
Cancel

FIG. 9

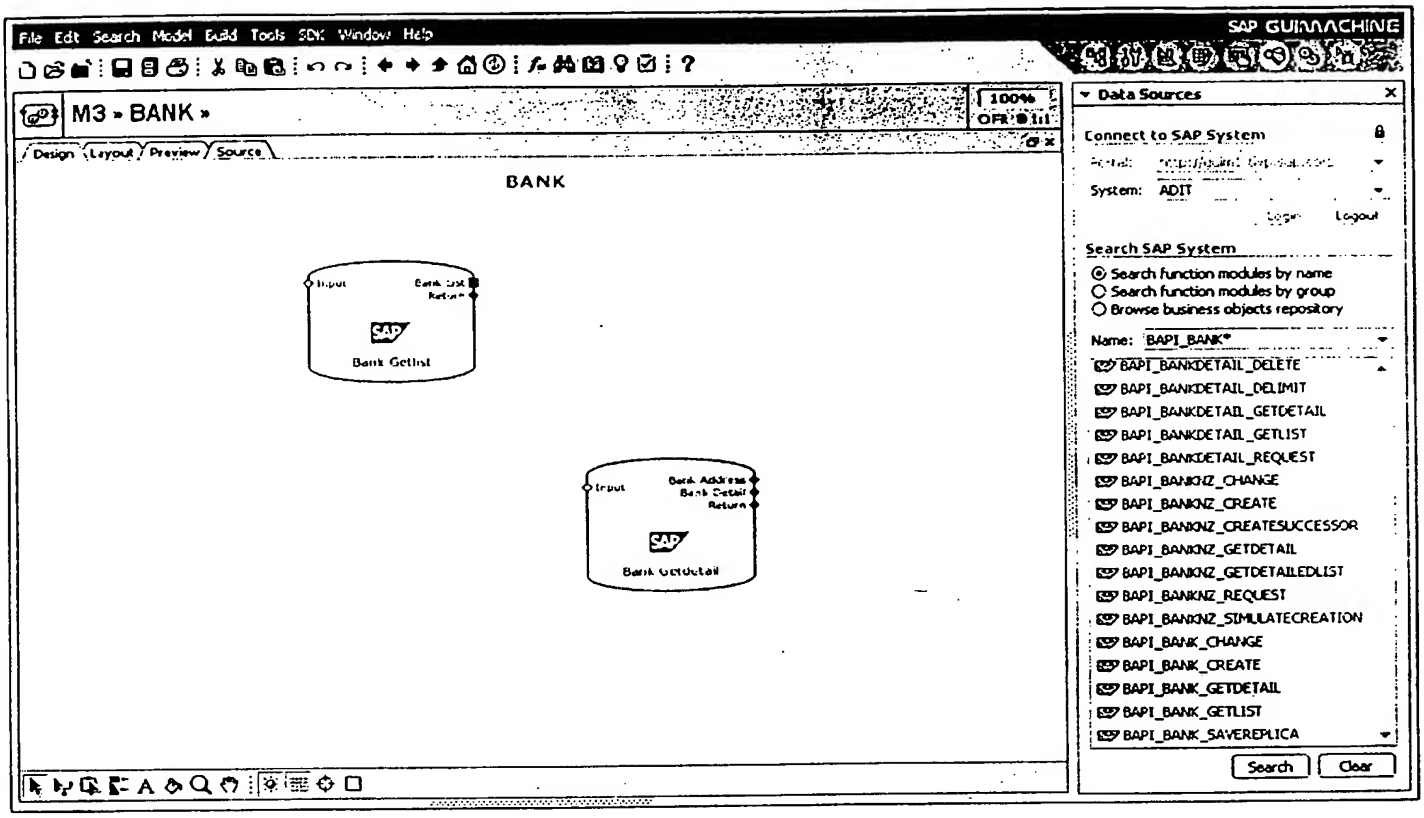

File Edit Search Model Build Tools SDK Window Help
SAP GUIMACHINE
M3 » BANK »
100%
Design Layout Preview Source
BANK
Bank Getlist
Bank Getdetail
Data Sources
Connect to SAP System
System: ADIT
Logout
Search SAP System
Search function modules by name
Search function modules by group
Browse business objects repository
Name: BAPI_BANK*
BAPI_BANKDETAIL_DELETE
BAPI_BANKDETAIL_DELIMIT
BAPI_BANKDETAIL_GETDETAIL
BAPI_BANKDETAIL_GETLIST
BAPI_BANKDETAIL_REQUEST
BAPI_BANKNZ_CHANGE
BAPI_BANKNZ_CREATE
BAPI_BANKNZ_CREATESUCCESSOR
BAPI_BANKNZ_GETDETAIL
BAPI_BANKNZ_GETDETAILEDLIST
BAPI_BANKNZ_REQUEST
BAPI_BANKNZ_SIMULATECREATION
BAPI_BANK_CHANGE
BAPI_BANK_CREATE
BAPI_BANK_GETDETAIL
BAPI_BANK_GETLIST
BAPI_BANK_SAVEREPLICA
Search
Clear

FIG. 10A

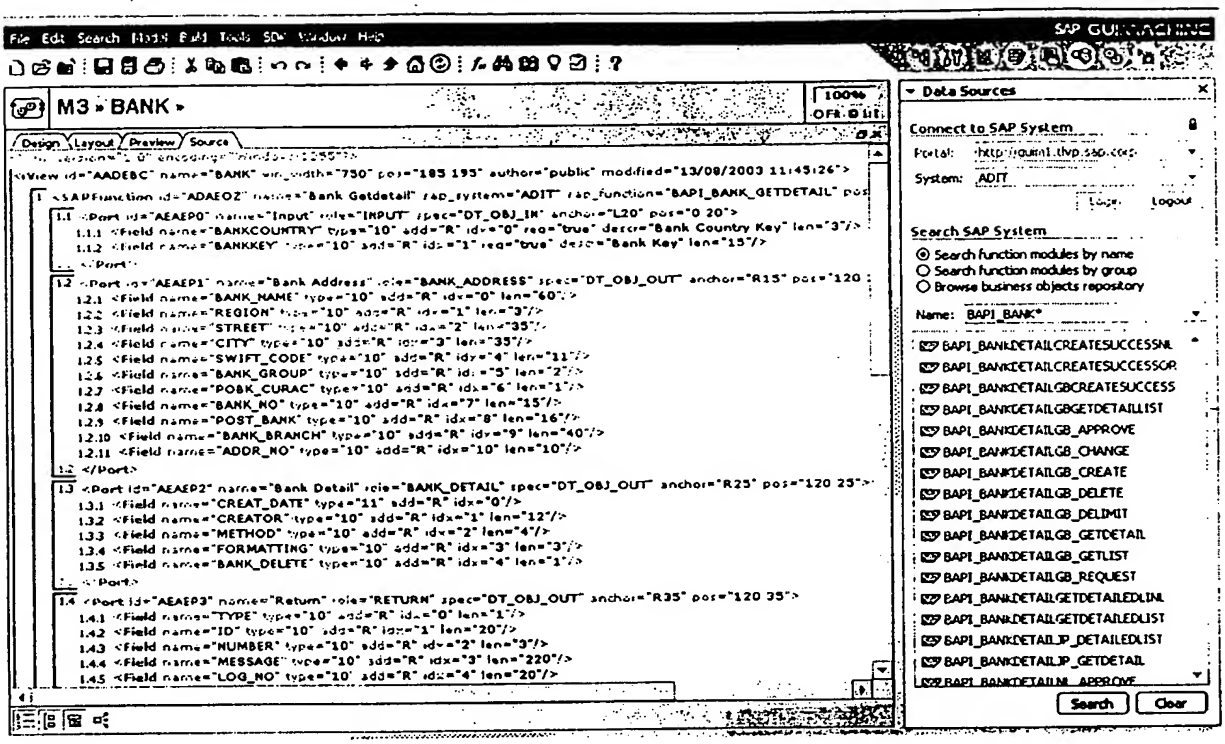


FIG. 10B

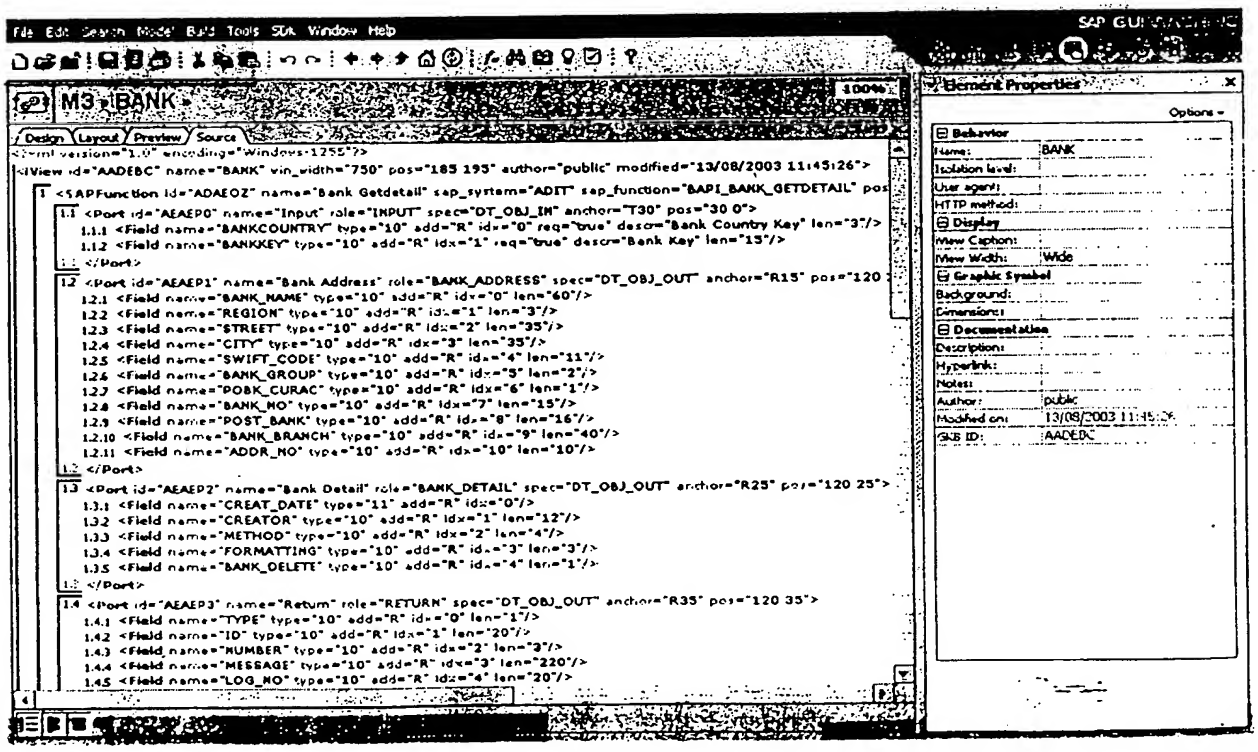


FIG. 11B

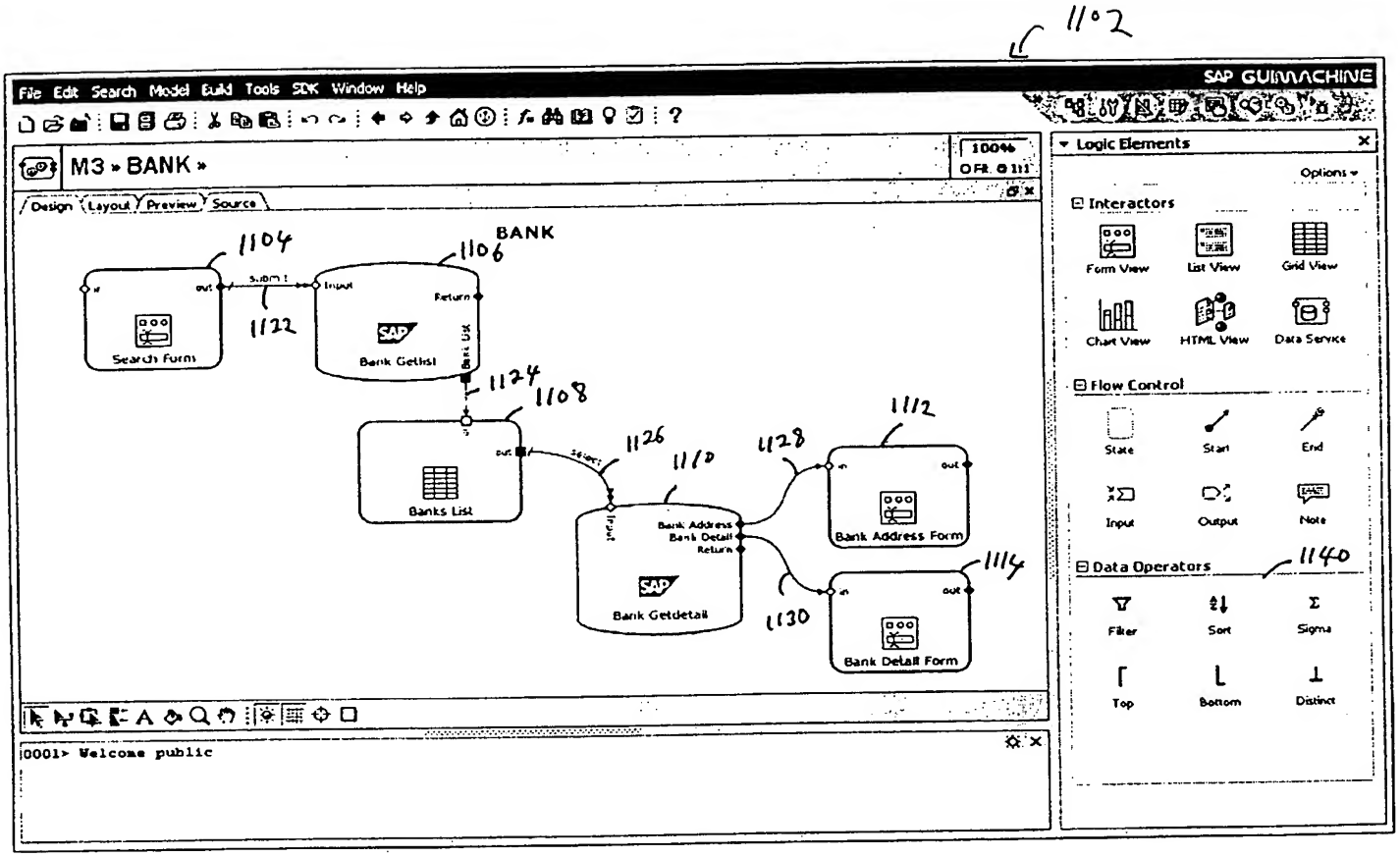

1102
File Edit Search Model Build Tools SDK Window Help
SAP GUIMACHINE
M3 » BANK »
Design Layout Preview Source
1104
BANK
1106
Search Form
submit
1122
Input
Return
Bank GetList
Bank List
1124
1108
out
Select
1126
1110
1128
1112
Bank Address
Bank Detail
Return
Bank Address Form
Bank Getdetail
1114
1130
Bank Detail Form
Logic Elements
Options
Interactors
Form View
List View
Grid View
Chart View
HTML View
Data Service
Flow Control
State
Start
End
Input
Output
Note
Data Operators
1140
Filter
Sort
Sigma
Top
Bottom
Distinct
0001> Welcome public

FIG. 11A

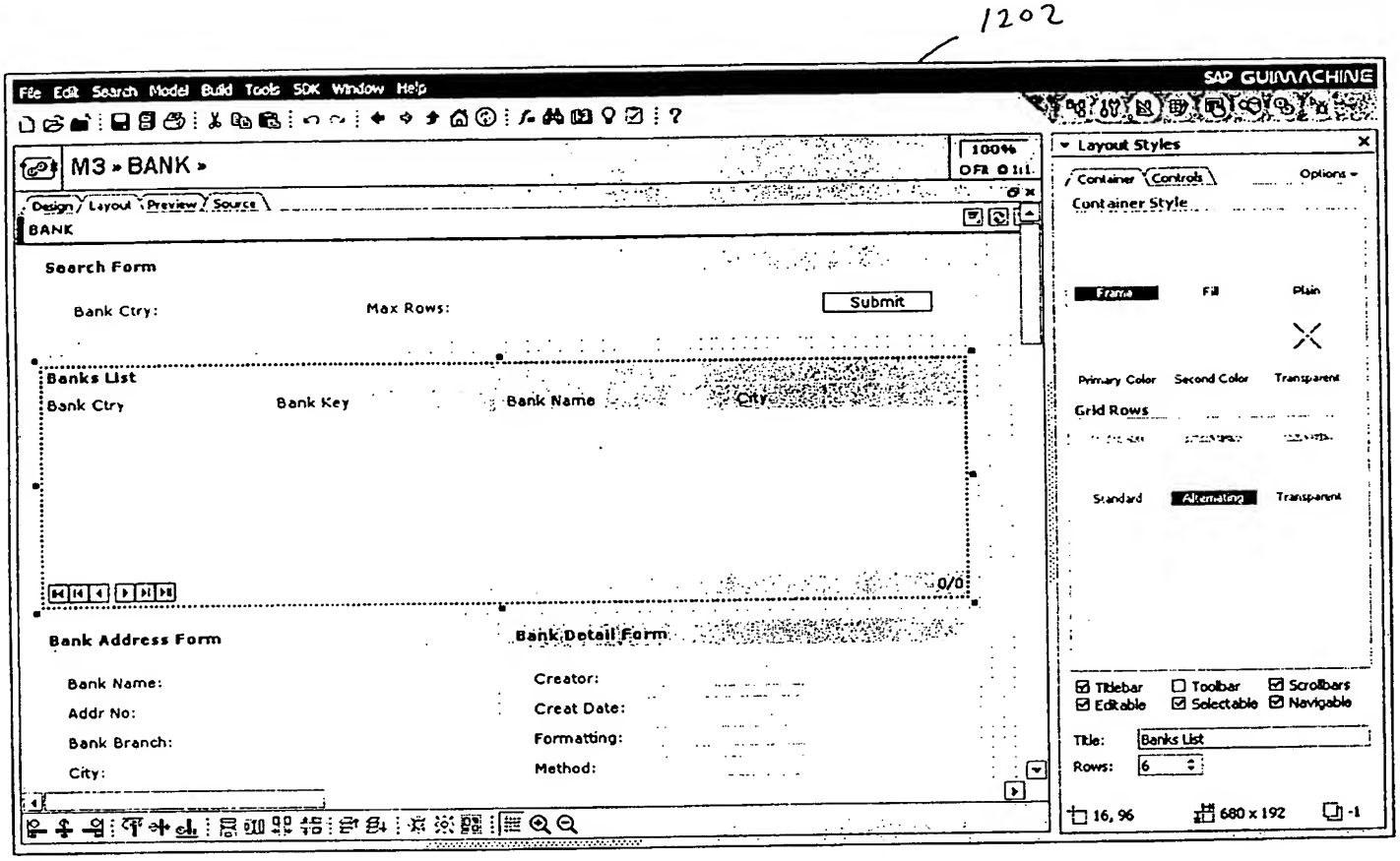

1202
File Edit Search Model Build Tools SDK Window Help
SAP GUIMACHINE
M3 » BANK »
100%
Design Layout Preview Source
BANK
Search Form
Bank Ctry:
Max Rows:
Submit
Banks List
Bank Ctry
Bank Key
Bank Name
City
0/0
Bank Address Form
Bank Name:
Addr No:
Bank Branch:
City:
Bank Detail Form
Creator:
Creat Date:
Formatting:
Method:
Layout Styles
Container Controls
Options
Container Style
Frame
Fill
Plain
Primary Color
Second Color
Transparent
Grid Rows
Standard
Alternating
Transparent
Titlebar
Toolbar
Scrollbars
Editable
Selectable
Navigable
Title:
Banks List
Rows:
6
16, 96
680 x 192
-1

FIG. 12

1302

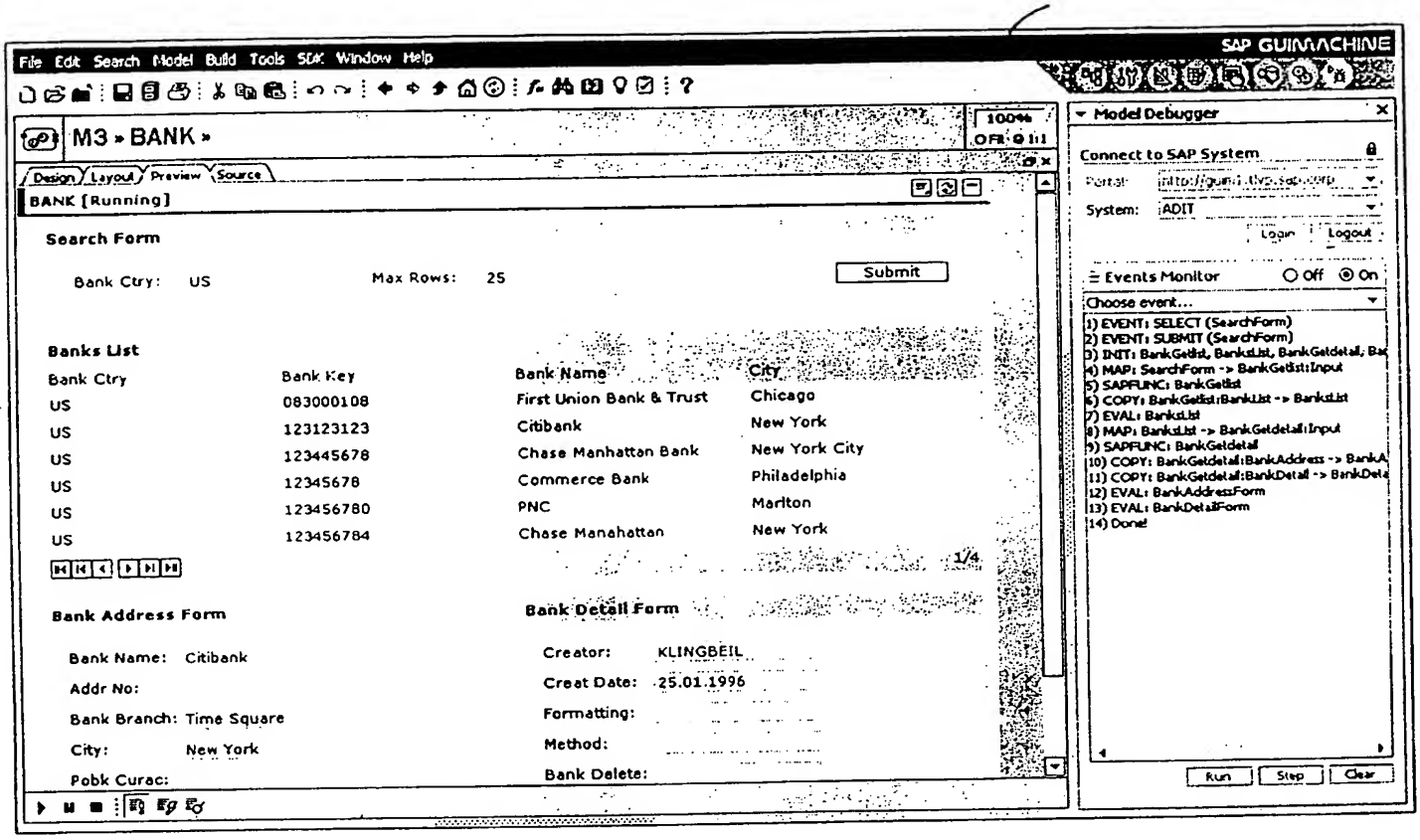

File Edit Search Model Build Tools SDK Window Help
SAP GUIMACHINE
M3 » BANK »
Design Layout Preview Source
BANK [Running]
Search Form
Bank Ctry: US
Max Rows: 25
Submit
Banks List
Bank Ctry
Bank Key
Bank Name
City
US 083000108 First Union Bank & Trust Chicago
US 123123123 Citibank New York
US 123445678 Chase Manhattan Bank New York City
US 12345678 Commerce Bank Philadelphia
US 123456780 PNC Marlton
US 123456784 Chase Manahattan New York
1/4
Bank Address Form
Bank Name: Citibank
Addr No:
Bank Branch: Time Square
City: New York
Pobk Curac:
Bank Detail Form
Creator: KLINGBEIL
Creat Date: 25.01.1996
Formatting:
Method:
Bank Delete:
Model Debugger
Connect to SAP System
System: ADIT
Login
Logout
Events Monitor
Off
On
Choose event...
1) EVENT: SELECT (SearchForm)
2) EVENT: SUBMIT (SearchForm)
3) INIT: BankGetlist, BanksList, BankGetdetail, Ba
4) MAP: SearchForm -> BankGetlist:Input
5) SAPFUNC: BankGetlist
6) COPY: BankGetlist:BankList -> BanksList
7) EVAL: BanksList
8) MAP: BanksList -> BankGetdetail:Input
9) SAPFUNC: BankGetdetail
10) COPY: BankGetdetail:BankAddress -> BankA
11) COPY: BankGetdetail:BankDetail -> BankDeta
12) EVAL: BankAddressForm
13) EVAL: BankDetailForm
14) Done!
Run
Step
Clear

FIG. 13

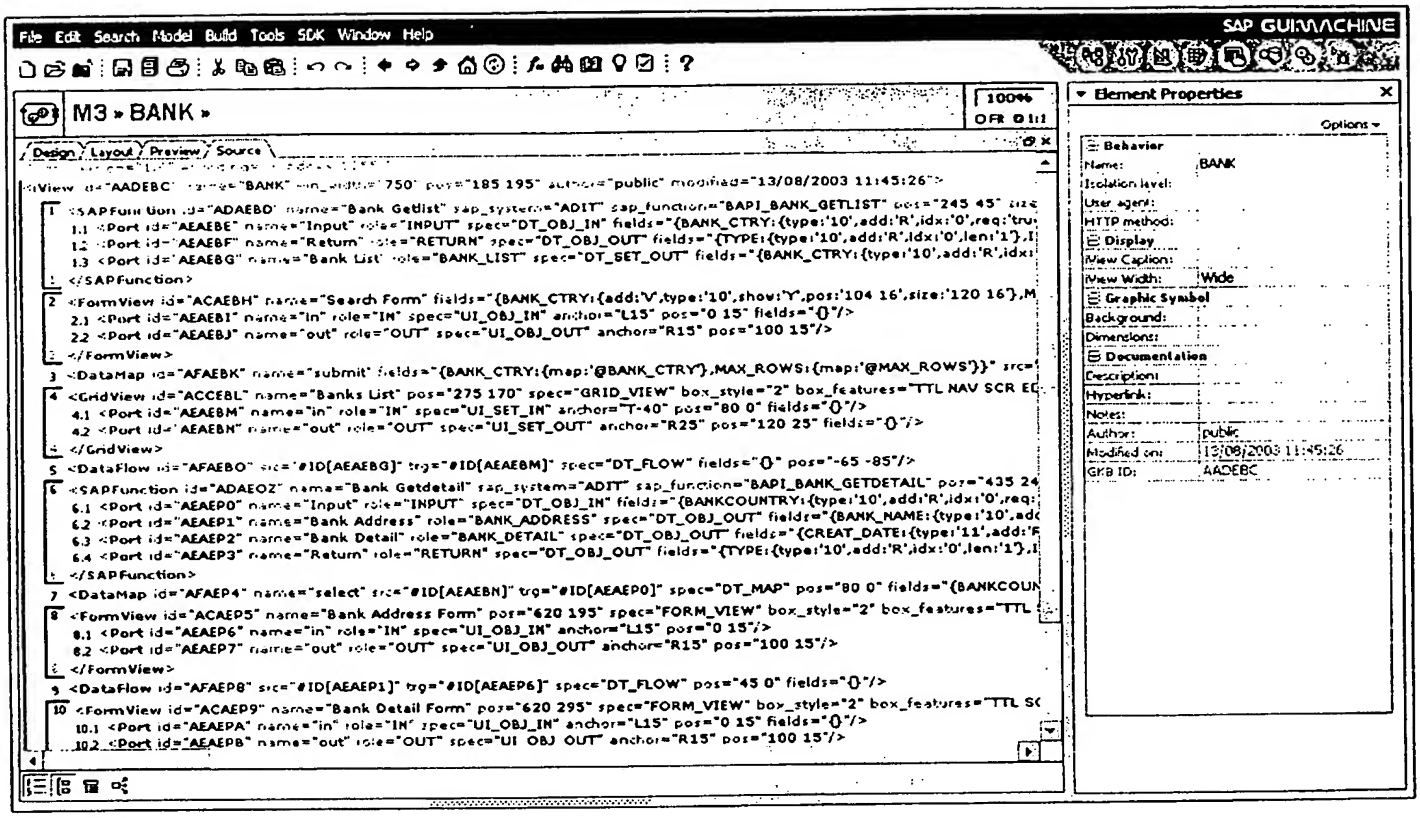

File Edit Search Model Build Tools SDK Window Help
SAP GUIMACHINE
M3 » BANK »
100%
Design Layout Preview Source
Element Properties
Options
Behavior
Name: BANK
Isolation level:
User agent:
HTTP method:
Display
View Caption:
View Width: Wide
Graphic Symbol
Background:
Dimensions:
Documentation
Description:
Hyperlink:
Notes:
Author: public
Modified on: 13/08/2003 11:45:26
GKB ID: AADEBC

FIG. 14

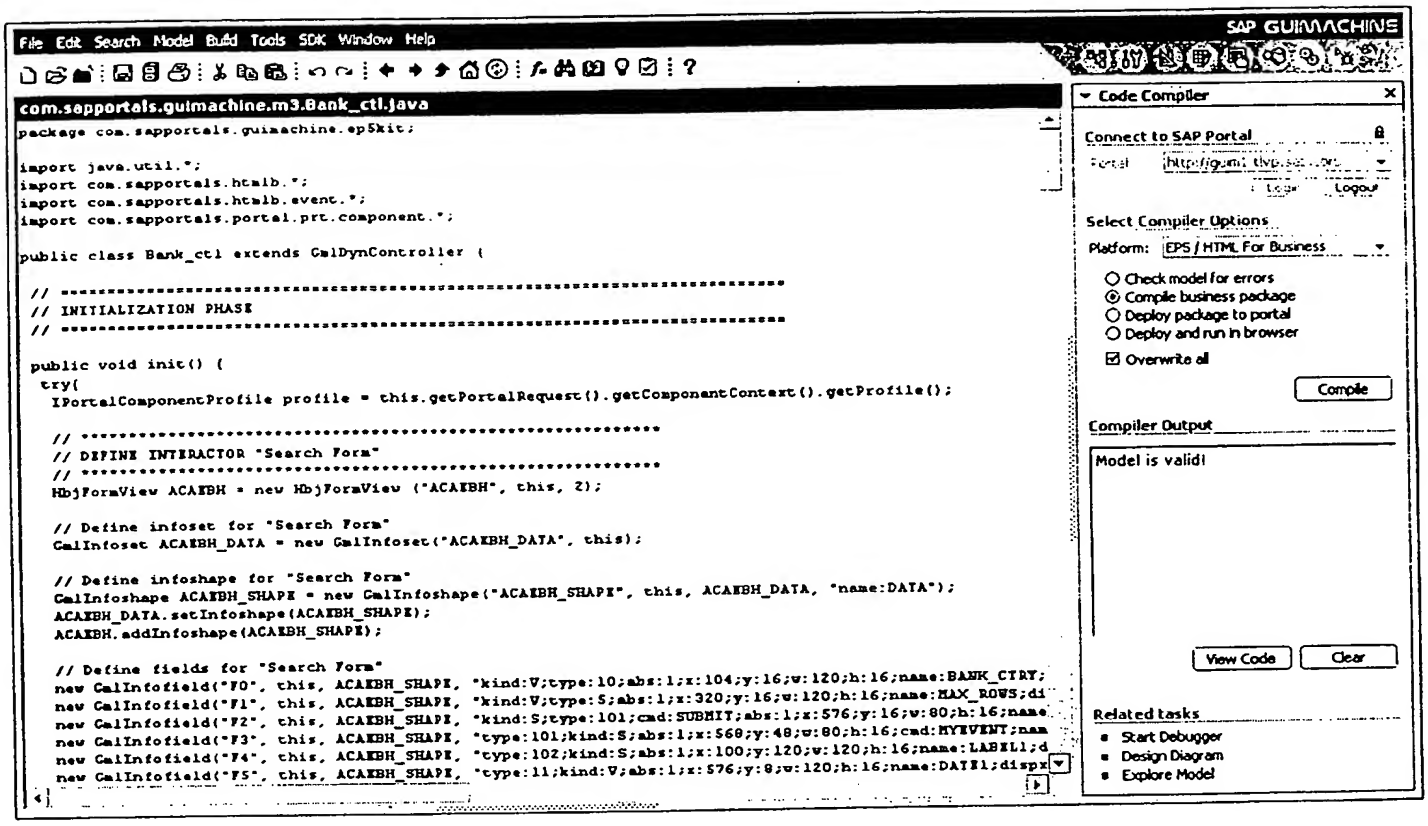

File Edit Search Model Build Tools SDK Window Help
SAP GUIMACHINE
com.sapportals.guimachine.m3.Bank_ctl.java
package com.sapportals.guimachine.ep5kit;
import java.util.*;
import com.sapportals.htmlb.*;
import com.sapportals.htmlb.event.*;
import com.sapportals.portal.prt.component.*;
public class Bank_ctl extends GmlDynController {
// INITIALIZATION PHASE
public void init() {
try{
IPortalComponentProfile profile = this.getPortalRequest().getComponentContext().getProfile();
// DEFINE INTERACTOR "Search Form"
HbjFormView ACAIBH = new HbjFormView ("ACAIBH", this, 2);
// Define infoset for "Search Form"
GmlInfoset ACAIBH_DATA = new GmlInfoset("ACAIBH_DATA", this);
// Define infoshape for "Search Form"
GmlInfoshape ACAIBH_SHAPE = new GmlInfoshape("ACAIBH_SHAPE", this, ACAIBH_DATA, "name:DATA");
ACAIBH_DATA.setInfoshape(ACAIBH_SHAPE);
ACAIBH.addInfoshape(ACAIBH_SHAPE);
// Define fields for "Search Form"
new GmlInfofield("F0", this, ACAIBH_SHAPE, "kind:V;type:10;abs:1;x:104;y:16;w:120;h:16;name:BANK_CTRY;
new GmlInfofield("F1", this, ACAIBH_SHAPE, "kind:V;type:5;abs:1;x:320;y:16;w:120;h:16;name:MAX_ROWS;di
new GmlInfofield("F2", this, ACAIBH_SHAPE, "kind:S;type:101;cmd:SUBMIT;abs:1;x:576;y:16;w:80;h:16;name
new GmlInfofield("F3", this, ACAIBH_SHAPE, "type:101;kind:S;abs:1;x:560;y:48;w:80;h:16;cmd:MYEVENT;nam
new GmlInfofield("F4", this, ACAIBH_SHAPE, "type:102;kind:S;abs:1;x:100;y:120;w:120;h:16;name:LABEL1;d
new GmlInfofield("F5", this, ACAIBH_SHAPE, "type:11;kind:V;abs:1;x:576;y:0;w:120;h:16;name:DATE1;dispx
Code Compiler
Connect to SAP Portal
Portal
Logon
Logout
Select Compiler Options
Platform: EPS / HTML For Business
Check model for errors
Compile business package
Deploy package to portal
Deploy and run in browser
Overwrite all
Compile
Compiler Output
Model is valid!
View Code
Clear
Related tasks
Start Debugger
Design Diagram
Explore Model

FIG. 15

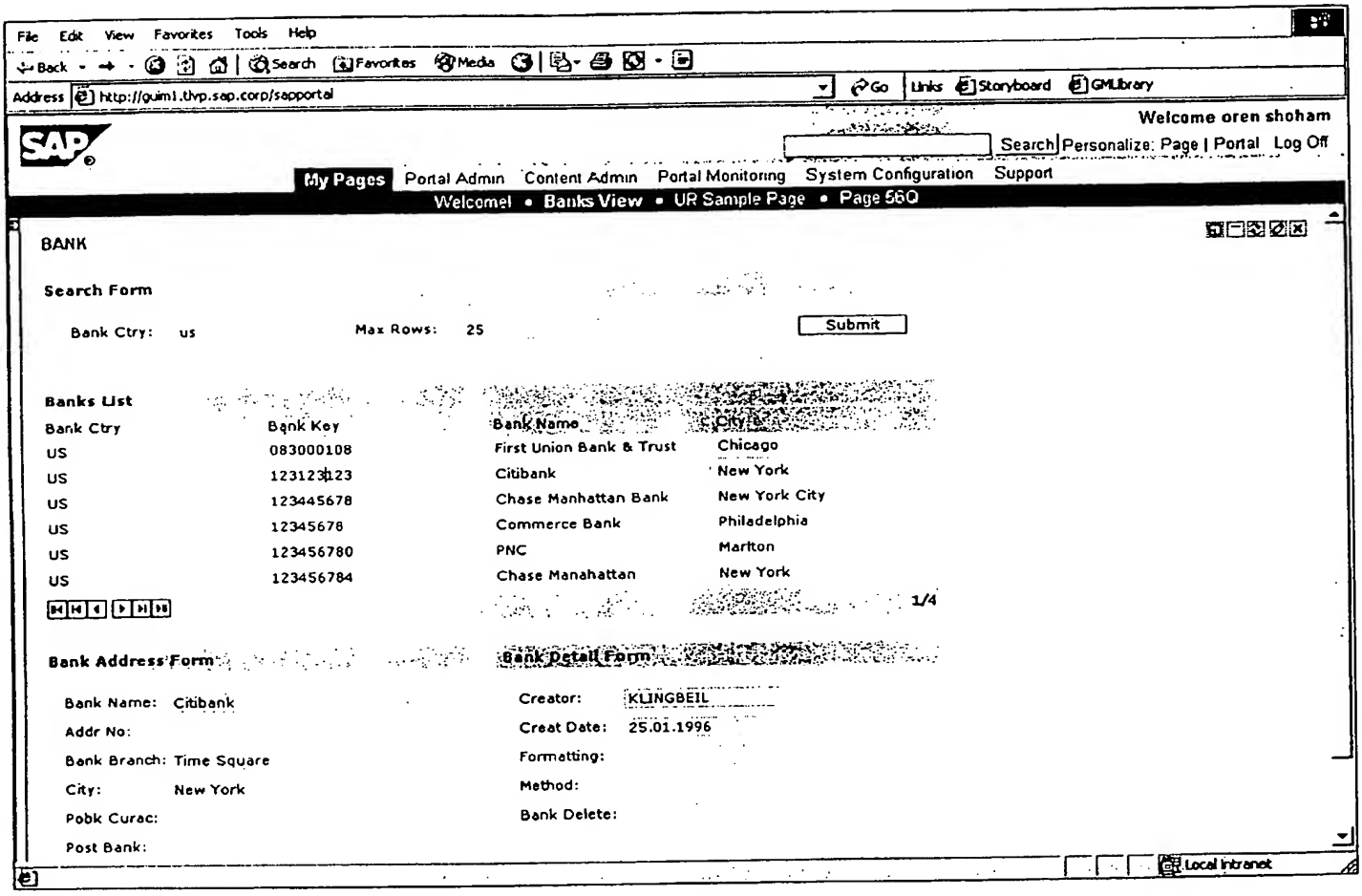

File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://guim1.tlvp.sap.corp/sapportal
Go Links Storyboard GMLibrary
Welcome oren shoham
Search Personalize: Page | Portal Log Off
My Pages Portal Admin Content Admin Portal Monitoring System Configuration Support
Welcome! • Banks View • UR Sample Page • Page 560
BANK
Search Form
Bank Ctry: us
Max Rows: 25
Submit
Banks List
Bank Ctry | Bank Key | Bank Name | City
US | 083000108 | First Union Bank & Trust | Chicago
US | 123123123 | Citibank | New York
US | 123445678 | Chase Manhattan Bank | New York City
US | 12345678 | Commerce Bank | Philadelphia
US | 123456780 | PNC | Marlton
US | 123456784 | Chase Manahattan | New York
1/4
Bank Address Form
Bank Name: Citibank
Addr No:
Bank Branch: Time Square
City: New York
Pobk Curac:
Post Bank:
Bank Detail Form
Creator: KLINGBEIL
Creat Date: 25.01.1996
Formatting:
Method:
Bank Delete:
Local intranet

FIG. 16